## **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.15

# SOURCE INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** SIR-002943 Address: 333 Burma Road **Date Inspected:** 05-Nov-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Dao, Shangha

**Quality Control Contact:** Don Walton **Quality Control Present:** Yes No

N/A **Material transfer:** Yes **Sampled Items:** Yes No N/A No **Stock Transfer:** N/A N/A Yes No OK to Cut: Yes No **Rebar Test Witness:** N/A **Delayed/Cancelled:** N/A Yes No Yes No

Other: Coatings Inspection

**Bridge No:** 34-0006 Sub-Assemblies (OBG), OBG and Office **Component:** 

**Bid Item:** Lot No: 77, 78, 79

## **Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. Kenneth W. Cason Jr. arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections is to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

Sub-Assemblies (OBG)

L10E Internal Floor from P.P. 90 to P.P. 92, NOI Number 4856: In accordance with project specifications and SSPC-PA 2, Dry Film Thickness (DFT) readings were recorded by ABF and ZPMC Quality Assurance/Control representatives for L10E Internal Floor from P.P. 90 to P.P. 92. ABF and ZPMC Quality Assurance/Control representatives noted several holidays (misses in coating application) and over blast damage in the coating installation. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection prior to final acceptance.

Hand Rails (16 Each) and Supports (24 Each), NOI Number 4857: In accordance with project specifications and SSPC-SP 1 in preparation for Galvanizing, ABF and ZPMC Quality Assurance/Control representatives observed the surface condition of Hand Rails (16 Each) and Supports (24 Each). No discrepancies noted.

Traveler Rails (45 Each), NOI Number 4858: In accordance with project specifications, this inspector along with ABF and ZPMC Quality Assurance/Control representatives and Caltrans Engineer, Chris Havel, observed the final coat installation on Traveler Rails. ABF and ZPMC QA/QC recorded final surface dry film thickness readings

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(DFT) in accordance with SSPC-PA2 and Mr. Havel approved the final coat installation with regards to appearance but noted minor discrepancies in the finish coating. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection prior to final acceptance.

L10E Internal Floor from P.P. 90 to P.P. 92, NOI Number 4860: In accordance with project specifications and SSPC-PA 2, Dry Film Thickness (DFT) readings were recorded by ABF and ZPMC Quality Assurance/Control representatives for L10E Internal Floor from P.P. 90 to P.P. 92. ABF and ZPMC Quality Assurance/Control representatives noted several holidays (misses in coating application) and over blast damage in the coating installation. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection prior to final acceptance.

Crash Barriers (105 Each), NOI Number 4865: In preparation for mist coat installation of Interfane 979 Polysiloxane, the Interzinc 22 undercoat on Crash Barriers (105 Each) were tested in accordance with SSPC-SP 1 (Surface Cleanliness), SSPC-PA 2 Dry Film Thickness (DFT) and ASTM D4752 (MEK Resistance of Ethyl Silicate (Inorganic) Zinc-Rich Primers by Solvent Rub). All test results were acceptable and within desired limits with x2 MEK @ grade 4 and grade 5. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

#### **OBG**

12AE OBG External Surface, NOI Number 4861: In preparation for Interzinc 22 undercoat installation, 12AE OBG external surfaces were tested in accordance with SSPC-SP 1 (Surface Cleanliness). Discrepancies noted require re-blasting and grinding of surface. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection prior to proceeding with process to the next check point.

CB13 and CB14 Cross Beam Bottom Supports Areas, NOI Number 4864: In preparation for mist coat installation of Interfane 979 Polysiloxane, the Interzinc 22 undercoat on CB13 and CB14 Cross Beam Bottom Supports Areas were tested in accordance with SSPC-SP 1 (Surface Cleanliness), SSPC-PA 2 Dry Film Thickness (DFT) and ASTM D4752 (MEK Resistance of Ethyl Silicate (Inorganic) Zinc-Rich Primers by Solvent Rub). All test results were acceptable and within desired limits with x2 MEK @ grade 5 and x2 soluble salts recorded reading of (17.7 and 23.8 µs/cm). ABF and ZPMC Quality Assurance/Control representatives noted several holidays (misses in coating application) along substrate edges. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection prior to proceeding with process to the next check point.

#### Office

Attend to report writing and photo documentation.

Note: Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

# Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Cason, Kenneth	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer